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ABSTRACT

Prepared as an aid to teachers, the document provides four outlined examples showing how to establish appropriate subobjectives and learning tasks when teaching Field Objectives from the Wisconsin Guide to Local Curriculum Improvement in Industrial Education, K-12. Examples seek to implement student understanding of the guide objectives and are geared to elementary, middle-junior high, junior high, and senior high school levels. (Lh)

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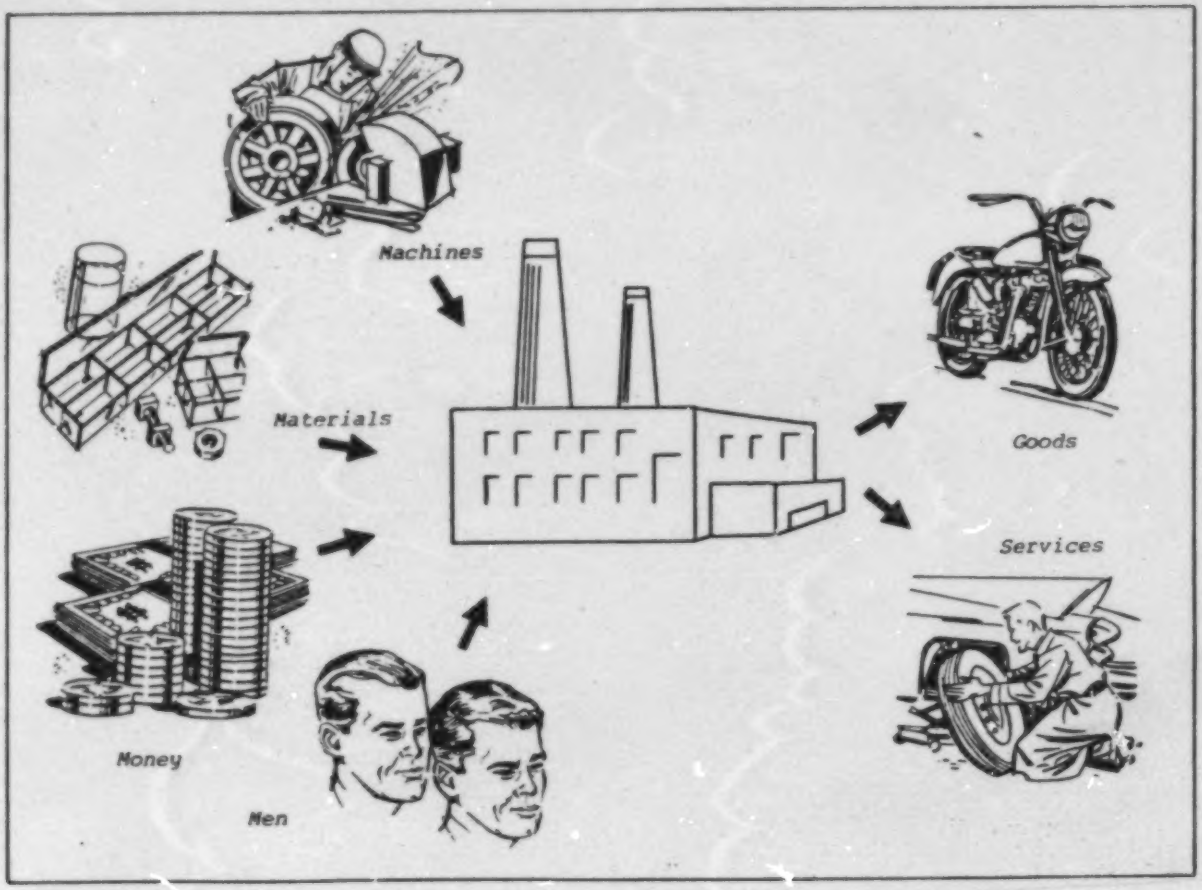
EXAMPLES OF LEARNING TASKS APPROPRIATE TO THE GUIDE



Prepared as an Aid in Implementing
The Wisconsin Guide to Local Curriculum
Improvement in Industrial Education, K-12

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Examples of Sub-Objectives and Learning Tasks Appropriate to Field Objectives Stated in the Guide

Prepared as an Aid in Implementing
The Wisconsin Guide to Local Curriculum
Improvement in Industrial Education, K-12

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Examples of Sub-Objectives and Learning Tasks Appropriate to Field Objectives Stated in the Guide

Field Objective #2: To understand the interdependence of society and industry.

Elementary level

Sub-objective (2.1.0 Supply and Demand)

1. To understand that industry will try to produce what people will buy.

Learning Tasks:

A. Visit a grocery store and ask the grocer why he has more of some items than others, such as more white bread than rye bread.

B. Make several different flavors of candy, including some that you do not like very well. Sell these to another class for play money and keep a record to determine which flavor would be the most profitable to make.

C. List several products of industry which you think would be hard for you and your family to do without.

D. Participate in a class discussion of whether a new industry planning to manufacture spinning wheels in your community might be successful.

E. Visit a local business selling Christmas trees. Make a graph of daily tree sales for each of the 31 days of December. Comment on the objectives of Christmas tree production as it relates to demand during each week in December as shown by the graph.

Sub-objective (2.6.0 Environment and Industry)

2. To understand that industry affects the environment, but is restricted by society.

Learning Tasks:

A. Take a ride around your community. List any examples of industrial pollution that you may see.

B. List ways in which pollution affects you.

C. Build a sandbox model which will show how water running off the land carries dissolved and suspended pollutants to the rivers, lakes, or oceans.

D. Construct a simple filter which will remove suspended particles from water.

E. Discuss and identify causes of smog.

F. Discuss how you can help prevent pollution.

G. Discuss how industry can help prevent pollution.

H. Construct a model city of cardboard showing major industry locations, transportation paths, housing locations, churches, schools, governmental buildings and the like.

Sub-objectives:

1. To understand that the location of an industry depends, to some extent, on the human resources of the area.

2. To determine the occupational opportunities that may be made available to the residents of the area where the industry is located.

Learning Tasks:

A. List the occupations of the citizens of the area.

B. List the occupations of the people employed in the industry.

C. Name the products made by the industry.

D. Compare the population of the area before and after the industry was built.

E. Discuss what would happen to the area if the industry ceased to operate.

F. Visit the industry operating in the area.

G. On a map, locate the best route to take on a visit to the industry from the school.

H. Collect the articles produced by the industry and mount for display.

I. Using the map, circle the location of the home of the employee who lives farthest from the industry and the location of the home of the one that lives closest.

Junior High Level

Sub-objective

1. To understand how the production of goods is determined by the needs and wants of society.

Learning Tasks:

A. From a given list of products, have students determine whether or not it would be feasible to market these products locally - based on a demand or lack of demand for the product.

B. From a given list of products and services, small groups devise and present systems or methods for creating a demand for their product or service.

C. (Group Project) Representatives of groups approach teachers, janitors, etc. to determine what their needs are in terms of products and/or services that could be fabricated or performed within the capabilities of the students. Products are then fabricated or services are performed.

Sub-objective:

2. To understand the role profit plays in industry.

Learning Tasks:

A. Calculate the selling price of a product or service.

B. List the factors that are involved in determining the profit that shall be realized from a product or service.

C. (Small Group Project) Fabricate a product or perform a service and determine the costs/expenses, profit, and selling price or service charge of that product or service.

D. Calculate the break-even-point and plot on a graph for a given product.

Sub-objective:

3. To understand how wages paid to a worker provide him with money and income for industry.

Learning Tasks:

A. Discuss each of the following:

What happens to industrial sales when wage increases are given?

What happens to industrial sales when a prolonged strike occurs and workers are not earning money?

What happens if industry produces a product that is too expensive for the wage earner?

B. Select a worker role in industry. Find out what a beginning worker might receive for his first week's wage. Plan a budget for how this money might be spent for food, clothing, shelter, recreation and savings.

Field Objective #3: To explore the context in which industry has developed and continues to develop.

Elementary Level

Sub-objective:

1. To understand how the lumbering industry regenerates its raw materials.

Learning Tasks:

A. To study the stages of re-forestation of an area.

B. Examine the growth rings in a tree and determine the trees approximate age of maturity for harvesting.

C. Determine the girth measurements and height of standing, mature trees.

D. Discuss the life of a tree as related to the climate and geographical area.

E. Discuss the fact as to how important a tree is in your life.

Sub-objective:

2. To understand how the mining industry developed taconite.

Learning Tasks:

A. List at least four reasons why taconite was developed.

B. List the stages that go into the production of taconite.

C. Make cast iron from taconite pellets and conduct tensile strength tests.

D. Debate the costs and production of taconite as compared to high-grade iron ore.

Middle-Junior High School Level

Sub-Objective:

1. To become aware of the mining techniques now used in the iron mining industry as compared to those used at the time of the gold discovery in California.

Learning Tasks:

A. List the major mining techniques and briefly describe them.

B. Make scale models showing how the gold rush mining techniques differ from those used in mining now.

Senior High School Level

Sub-objective:

1. To become aware of the influence government (society) has had on the growth and control of industry.

Learning Tasks:

A. Locate a current (within the past six months) magazine article dealing with government's relationships to industry, read it, study it, and give a short oral summary and interpretation to the class.

Field Objective #4: To explore occupational areas as a basis for selecting a career and understanding the pursuits of others.

Elementary Level

Sub-objective:

1. To become aware that people do many things in life to earn a living.

Learning Tasks:

A. As a group, name as many different occupations from within the community as you can.

B. Each student, choose one occupation that you believe is an interesting one and write a short story about it.

C. Draw a picture showing a worker at work in an interesting occupation.

Sub-objective:

2. To understand that there are similarities between many production processes.

Learning Tasks:

A. Describe the similarities between building a house and building a car.

B. Build something from wood and something from another material and tell in what ways each construction was similar.

C. Explain the differences and similarities between the way goods were produced when our country was founded and the way they are produced today.

Sub-objective:

3. To become aware that tools require proper care so that they may be used safely and be of the most benefit.

Learning Tasks:

A. Put tools in their proper place after use.

B. Use three tools such as hand saw, screwdriver, hammer in their proper manner so that tool damage and accidents are prevented.

C. Discuss why a sharp tool is safer than a dull one.

Junior High Level

Sub-objective:

1. To understand some of the training needed for particular kinds of work.

Learning Tasks:

A. Take a field trip to technical schools

B. Take a field trip to industries

C. List your interests and identify possible occupations that satisfy these interests.

D. Construct a small project which has some type of relationship to your occupational interests.

Sub-objective:

2. To understand that most occupations are on a "ladder" and that advancement with experience and additional training is possible.

Learning Tasks:

A. Describe the typical "chain of command" in industry.

B. Select a position within the "chain of command" that satisfied your aspirations.

C. Play the role of a position of interest to you related to the production of a project.

Sub-objective:

3. To see the relationship between work and its purpose.

Learning Tasks:

A. Perform an assigned assembly-line task.

B. Write a statement identifying how this task contributes to the finished project.

C. Make application for a role in an instructional assembly line operation.

Sub-objective:

4. To understand the conservation of personnel (safety) as it relates to industry.

Learning Tasks:

A. Develop a safety device for a machine.

B. Build a safety device for a machine.

C. Develop safety slogans and posters for use in the shop.

D. Practice safety on all machines which you operate.

E. Differentiate between the safe and unsafe operations of hand tools and machines.

Senior High School Level

Sub-objective:

1. To experience and observe work in a real situation.

Learning Tasks:

A. Take an unpaid position in a work role of assistance in an occupation of your choice for a period of one Saturday or one week in the summer.

B. Seek out and accept summer employment for pay.

C. Become placed in the cooperative work experience program in your 12th grade year.

D. Write a report of your employment experiences showing how these occupations affect life styles.

Sub-objective:

2. Evaluate a variety of jobs and form value judgements about them.

Learning Tasks:

A. After researching several occupations of his choice, the student will report his reasons for preference of certain occupations over others.

Field Objective #5: To prepare for entry into appropriate industrially related occupations and develop a base for further occupational education.

Senior High School Level

Sub-objective:

1. Develop employable skills for job entry.

Learning Tasks:

A. Time a car

B. Operate a cash register

C. Identify correct procedures used in gas welding

D. Frame a model of a corner of a house

E. Make an acceptable working drawing for a product

F. Measure inside and outside dimensions using a micrometer

G. Make a printed circuit board which serves a particular function

H. Use technical references to solve construction and assembly problems